

## AMENDMENTS TO THE SPECIFICATION

Please replace the paragraphs on pages 3 – 6 of the International Published Application (number WO 03/090200 A1) with the following rewritten paragraphs:

-- It is therefore ~~the principal~~one object of aspect of the ~~present~~ invention to provide a system and method for the use of multiple full-fledged applications on a user's machine, particularly a mobile machine such as, for example, a PDA or mobile phone where the applications execute on a server and not on the user's machine. The applications can also be manipulated on the user's machine.

A further object of aspect of the ~~present~~ invention is to provide such a system whereby a display device of the user's machine acts as the display device of the server, allowing for manipulation natively on the user device.

~~A final~~Another object of aspect of the ~~present~~ invention is to provide such a system whereby the server sends data for display on the user's machine's display device in accordance with the resolution of the display device in an automated fashion.

### Summary of the Invention

With the above and other objects in mind, one aspect of the ~~present~~ invention provides a system for a server to stream data to a user's machine, wherein the data is sent to the user's machine as a stream of data for display on the user's machine with a resolution determined by the ability of the user's machine to display the data. Data includes bytes of codes.

~~In a~~Another form,aspect of the ~~present~~ invention provides a system for a server to enable a user's machine to operate an application, wherein the application is executed on the server and such data as is required for the user's machine to operate and display the application is sent to the user's machine as a stream of data for display

on the user's machine with a resolution determined by the ability of the user's machine to operate and display the application.

~~The present~~Another aspect of the invention ~~also~~ provides an application service provider operating system wherein an application is executed on a server, the server being for streaming data for display on a display device of a machine of a user, the data being streamed to accord with a resolution requirement of the display device, the display device acting as the display device of the server. A plurality and variety of applications may be executed on the server, all applications being executed on the server under a single operating system such that the data is streamed to the display device without the plurality of applications having to start or require the presence of their native operating systems.

In a further form, an aspect of the ~~present~~ invention provides a software system for enabling a server to execute an application for display and manipulation on a display device of a user's machine, the software system being in a single operating layer architecture in the user's machine. The software system may include a platform for operating on the user's machine; the platform including a platform engine operating as an operating system. Preferably, the operating system is for security, driver support, power management, boot loader, and file system. The single operating layer architecture may also be used in the server.

~~The present~~A further aspect of the invention also provides a system for a server to stream data to a user's machine to enable any media file to be displayed on a display device of the user's machine, and with any such media file being converted by the server from a media format to a universal media format agreed between the server and the user's machine. Through the conversion constant compression rates are ensured to allow real-time streaming of the data.

~~Further provided by~~Yet another aspect of the ~~present~~ invention is a system for a server to stream data to a user's machine to enable an HTML file to be displayed on a display device of the user's machine, the server including an HTML resizing server for resizing the file before sending the file to the user's machine. Any images in the HTML file may be resized to be able to be fully displayed on the display device. The HTML file is parsed and the code amended, on the server, to enable the HTML media file to be displayed on the display device. This process is performed in an automated fashion.

In yet a further ~~form~~aspect, the ~~present~~ invention provides a system for enabling a server to enable a user's machine operate an application: executed on the server, wherein the application is executed in a protected environment in which access controls are implemented to restrict access by the application to at least one restricted area of the system. The application may be copied into the protected environment before execution,

~~In a final form,~~In an additional aspect the ~~present~~ invention provides a system for a server providing an installation to a user's machine, the installation being sent by the server to the user's machine with instructions for automatic installation on the user's machine, the instructions being packaged with the installation prior to being sent to the user's machine so that, upon receipt by the user's machine, the user's machine can unpack the installation and the instructions, execute the instructions, and launch the installation on the user's machine. The installation may be a device driver, in which case the device driver files are copied to the system file locations and the system settings updated. A record may be kept of device driver installations used on the user's machine so that device drivers that are more frequently used are maintained in a memory of the server. The memory may be a read-only-memory.

The installation ~~may~~can be an update for an operating system operating on the user's machine, in which case a new file in tile installation is copied to the server.

The ~~present~~ invention also extends to all possible combinations of aspects of the invention all forms of the invention disclosed herein.

### **Description of the Drawings**

In order that the present invention may be fully understood and readily put into practical effect there shall now be described by way of non-limitative example only a preferred embodiment of the present invention, the description being with reference to the accompanying illustrative drawings in which:

Figure 1 is an overall flow chart for one embodiment of the platform to be used on a user's machine;

Figure 2 is a flow chart for an embodiment of the user authentication of Figure 1;

Figure 3 is a flow chart for an embodiment of viewing an HTML file of Figure 1;

Figure 4 is a flow chart for an embodiment of launching a multimedia plug in of Figure 1;

Figure 5 is a flow chart for an embodiment of the launching of a remote application of Figure 1;

Figure 6 is a flow chart for an embodiment of a system update of Figure 11;

Figure 7 is an overall flow chart for an embodiment of the platform's response to an input;

Figure 8 is a flow chart for an embodiment of a user's input of Figure. 7;

Figure 9 is a flow chart for an embodiment of a system input of Figure 7;

Figure 10 is a flow chart for an embodiment of a server input of Figure 7;

Figure 11 is an overall flow chart for an embodiment of the server operation (first part);

Figure 12 is an overall flow chart for an embodiment of the server operation (final part);

Figure 13 is a flow chart for an embodiment of user authentication of Figures 11 and 12;

Figure 14 is a flow chart for an embodiment of resizing and caching an HTML file of Figures 11 and 12;

Figure 15 is a flow chart for an embodiment of the streaming of media of Figures 11 and 12;

Figure 16 is a flow chart for an embodiment of the launching of an application (first part);

Figure 17 is a flow chart for an embodiment of the launching of an application (final part);

Figure 18 is a flow chart for an embodiment of a device driver request of Figures 11 and 12;

Figure 19 is a flow chart for an embodiment of an update of the operating system of Figures 11 and 12;

Figure 20 is a system architecture diagram for an embodiment of the platform;

Figure 21 is a system architecture diagram for an embodiment of the server engine, and

Figure 22 is a diagram for an embodiment of application hosting.

### **Description of the Preferred Embodiment**

Although the description that follows is relevant for a mobile computing environment (mobile phone; PDA; etc) the present invention can be used with any machine able to communicate with a server over a telecommunications network.

In the following description, reference numerals will be used with the first two numerals denoting the figure in which the object can be found. For example, 0605 refers to object 5 in figure 6 and 0700 refers to figure 7.

To first refer to Figure 20, the platform is built on the Single Operating Layer Architecture ("SOLA"), and has an engine executor 2001 and an engine listener 2020. The engine executor 2001 provides the software interface 2002, including the Internet interface and remote application interface. The engine listener provides the native hardware support interface.

The platform has only its engine. The shell that the platform engine provides is natively rendered by the platform engine. The platform engine provides HTML and

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